Oct. 29, 1957 D. CHAPMAN 2,810,978

CONTAINERS FOR LIQUIDS

Filed April 6, 1954 2 Sheets-Sheet 1

Fig. 1.

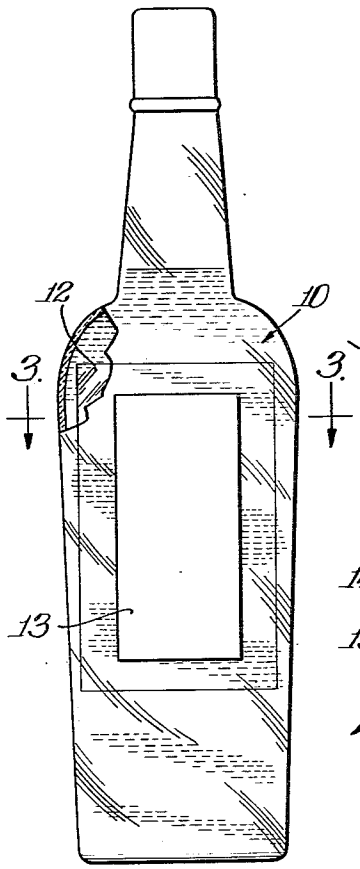


Fig. 2.

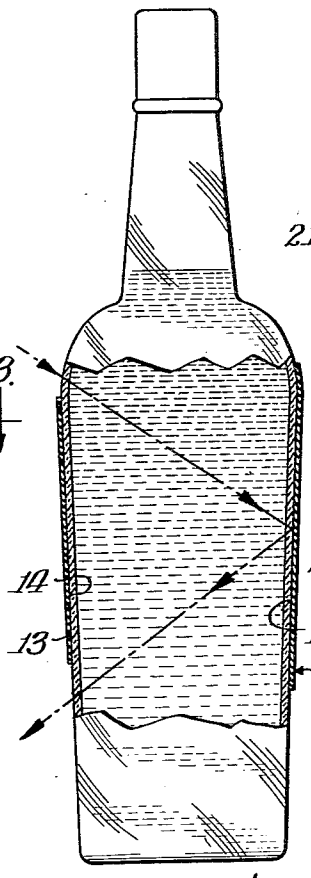


Fig. 4.

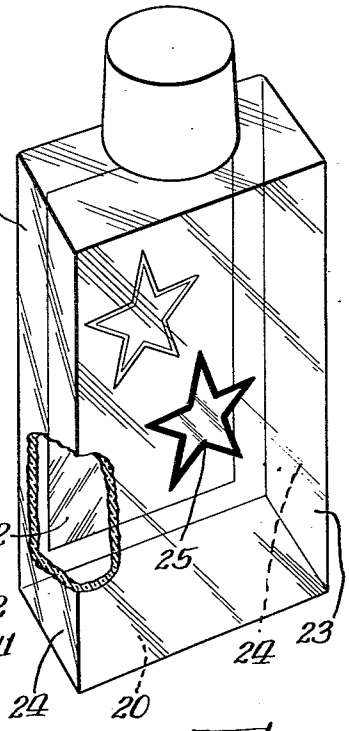


Fig. 3.

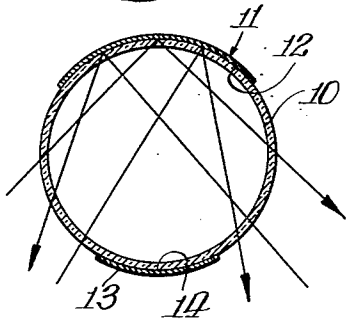


Fig. 8.

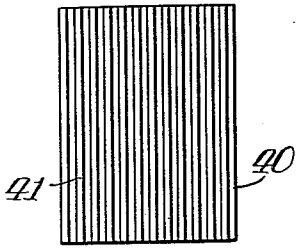
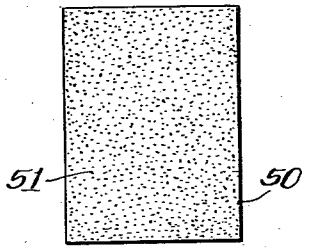


Fig. 9.



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Fig. 5.

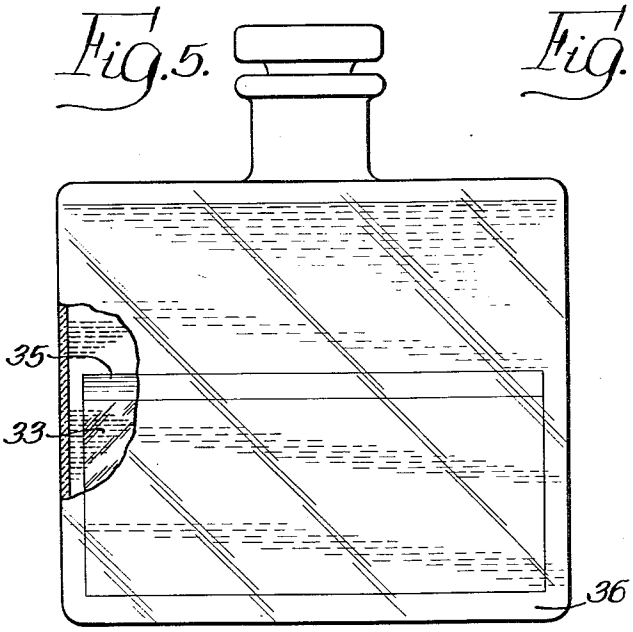


Fig. 6.

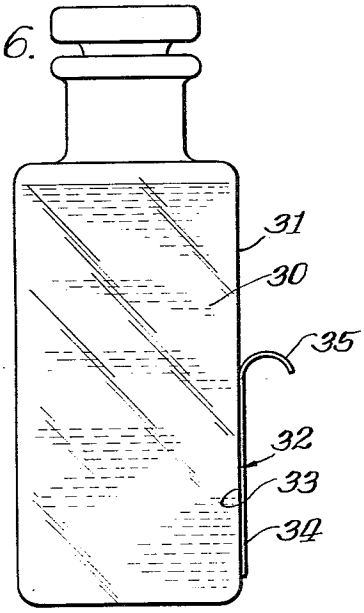
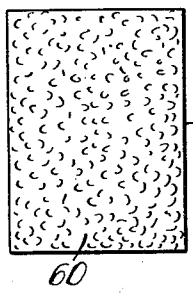


Fig. 10.



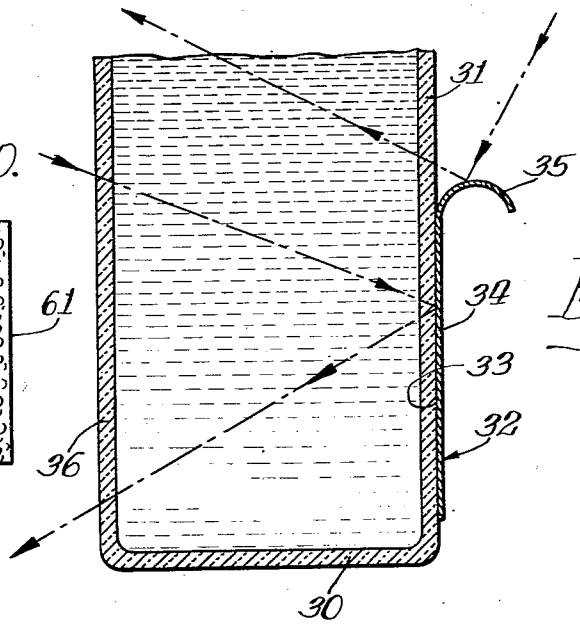


Fig. 7.

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CONTAINERS FOR LIQUIDS

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Application April 6, 1954, Serial No. 421,347

10 Claims. (Cl. 41—22)

My invention relates to containers for liquids and has to do more particularly with a transparent or translucent container adapted for the display and/or merchandising of a transparent or translucent liquid.

An object of my invention is to provide a container for a transparent or translucent liquid so constructed as to enrich the appearance of the liquid and enhance the attractiveness thereof.

Another object is to provide a display container for a transparent or translucent liquid having a reflector on a wall thereof arranged to reflect through the liquid in the container light entering the container.

Another object is to provide a display container for a transparent or translucent liquid having a reflector on a wall thereof arranged to intensify, enrich and modify the appearance of the liquid and thereby enhance the attractiveness of the liquid.

A further object is to provide a container for a transparent or translucent liquid having affixed to a wall thereof a reflector adapted to reflect light through the container and the contents thereof whereby the contents of the container are made more conspicuous and the attractiveness thereof is enhanced.

Still another object is to provide a container for a transparent or translucent liquid having a label or ornamentation on a wall thereof and a reflector arranged to enhance the attractiveness of the liquid and to provide a novel and attractive background effect for the label or ornamentation when the container is viewed in its normal display position.

A further object is to provide a container for a transparent or translucent liquid having a label or ornamentation on a wall thereof and a reflector arranged to enhance the attractiveness of the liquid and to reflect the label or ornamentation.

Other objects will appear from the following description taken in connection with the accompanying drawings, wherein:

Figure 1 is a front elevational view showing a container embodying my invention;

Fig. 2 is a side elevational view showing the container of Fig. 1 with a portion broken away and sectioned;

Fig. 3 is a view of a section taken along line 3—3 of Fig. 1;

Fig. 4 is a perspective view of a second form of container embodying my invention;

Fig. 5 is a front elevational view showing a third embodiment of my invention;

Fig. 6 is a side elevational view of the container shown in Fig. 5;

Fig. 7 is a fragmentary, vertical sectional view of the container of Fig. 5;

Fig. 8 is a view showing a portion of a modified reflective surface suitable for use in practicing my invention;

Fig. 9 is a view similar to Fig. 8 showing another type of reflective surface suitable for use in practicing my invention; and

Fig. 10 is a view similar to Fig. 8 showing still another

type of reflective surface suitable for practicing my invention.

My invention is directed generally to the provision of a novel container for displaying and/or merchandising transparent or translucent liquids wherein the liquids are at least partially exposed to view. It will be apparent from the following description that the invention is suitable for use in connection with many different types of containers and liquids. However, it finds its principal application in connection with the display and/or merchandising of liquids such as, for example, alcoholic beverages and perfumes which are customarily contained in attractive bottles to enhance the attractiveness and salability of the product.

The invention is most effective where both the container and the liquid are transparent but also may be employed where either the liquid or the container or both are not clear and fully transparent but are sufficiently translucent to permit light to pass therethrough with sufficient intensity to produce the desired effect hereinafter described.

Referring now to Fig. 1 of the drawings, there is illustrated a preferred embodiment of my invention. The container comprises a bottle 10 of conventional, generally cylindrical form having a reduced neck or pouring portion such as is commonly used for containing beverages. The bottle 10 is formed of a material, preferably glass, which is sufficiently transparent to permit the liquid to be viewed through the walls of the bottle, although it will be apparent that it is not necessary that the material be fully transparent. The glass may be either colorless or so tinted as to modify the appearance of the liquid as is common.

In order to facilitate description of my invention, I designate the "front" wall that area of the bottle side wall portion which is directly in front of the viewer when the bottle is in its usual display position, and as the "rear" wall the area of the bottle side wall directly opposite the front wall, and as the "end" walls those areas of the bottle side wall intermediate the front and rear walls.

In accordance with my invention, I provide on one portion of the side wall of the container, and more particularly on the rear wall, means for reflecting through other portions of the side wall and through any transparent or translucent liquid which may be contained in the bottle at least a portion of the light which passes into the bottle. To this end I provide a reflector 11 on the rear face of the bottle, having a reflective surface 12 facing inwardly toward the interior of the bottle. The reflective surface 12 overlies and is in contact with the corresponding portion of the rear face of the bottle.

The reflector 11 may be formed in any manner which suitably provides the desired result hereinafter described. Preferably the reflector takes the form of a sheet having a reflective surface, which sheet is adherently attached to the rear face of the bottle as by a suitable known adhesive which is transparent or sufficiently transparent to not materially interfere with the passage of the light therethrough. The sheet may be formed of a suitable material, such as paper, having at least one surface formed so as to have reflective properties. Such reflective properties may be provided by attaching to the paper a suitable metal foil such as tin foil, silver foil or aluminum foil, or by applying to the sheet a reflective coating of a suitable material. Alternatvely a metal foil having a reflective surface may be attached to the rear wall of the bottle or the latter may be coated directly with a coating of a reflective nature, such as a metal, in a manner similar to that in whch mirrors are formed. The reflective surface preferably is one having relatively high reflective characteristics, although desirable results may be obtained where the surface is not highly reflective. Thus, the reflec-

tive surface may be so formed as to have a polished or mirror appearance or a "satin" appearance, or it may have a roughened appearance, as hereinafter explained.

The reflector 11 and more particularly the reflective surface 12 serves to reflect light rays passing into the bottle through areas of the side wall portion other than the area overlain by the reflector. Such reflected rays (some of which are indicated diagrammatically in Figs. 2 and 3) or at least a portion of them pass through any transparent or translucent liquid which may be contained in the bottle and through the side wall areas not obscured by the reflector. Thus, when the bottle is viewed in its customary position, the appearance of the liquid in the bottle is brightened and enlivened and particularly the portion thereof which lies in the line of sight between the reflective surface and the eyes of the viewer. Consequently an enriched, more attractive appearance is imparted to the liquid, than where the liquid is viewed in transmitted light or light reflected by the side wall of the bottle.

The bottle 10 may have adherently secured to its front face a label 13 as is customary, which label may bear on its outer face ornamentation and/or informative matter, such as the nature of the liquid, the manufacturer's name and the like. Where the reflector of the present invention is applied to a bottle containing a label such as that described, I prefer to provide a reflector of greater area than that of the label so that when the bottle is viewed in its customary viewing position, the marginal portions of the reflective surface are exposed to view through the front wall of the bottle and any transparent or translucent liquid contained in the bottle. Accordingly, the portions of the reflective surface which are thus exposed to view provide the desired enriched and enlivened appearance to the liquid which is in the line of sight between the eyes of the viewer and the reflective surfaces. Moreover, the reflective surface provides a background or framing effect for the label which enhances the attractiveness of the latter.

If desired, the label 13 may be provided with a reflective rear or inner surface 14 formed similarly to the reflective surface of the reflector 11 and which functions in a manner similar to the surface 12 to provide an enriched appearance when the bottle is viewed from an appropriate angle.

At this point it should be noted that the reflector 11 does not extend over the entire peripheral extent of the side wall portion of the bottle and preferably not more than one half of the peripheral extent so that it does not obscure the view of the reflective surface when the bottle is in the usual viewing position. Where the bottle is provided with both a reflective and an opaque label they are so arranged as to leave the end wall portions substantially unobscured and thereby permit light rays to pass into the bottle (as indicated somewhat diagrammatically in Figs. 2 and 3) in order that they may be reflected by the reflector and provide the novel effect desired.

The invention may be employed in connection with containers of various shapes and is effective to provide a novel and attractive appearance to a container having parallel planar front and rear walls such as the bottle 20 illustrated in Fig. 4. The bottle 20 preferably is formed with glass although it may be formed of other suitable transparent or translucent material such as a plastic. A reflector 22 which preferably is formed in a manner similar to the reflector 11 described hereinabove is disposed on the rear wall 21 of the bottle 20 and has a reflective surface facing forwardly—that is to say, toward the interior of the bottle and the front wall 23. The reflector 22 may extend over any desired portion of the rear wall of the container and for purposes of illustration I have shown it as extending over a substantial portion of the rear wall of the container. The reflector 22 thus serves to reflect at least a portion of the light rays entering the bottle through the front and side walls and thus imparts to the liquid a brightened and enlivened appearance.

Owing to the right angle relationship between the side walls 24 and the rear wall 21 certain of the light rays entering the bottle are reflected from the reflective surface of the reflector 22 toward the side walls 24 and are reflected by the latter through the front wall 23 of the bottle. Thus, when the bottle is viewed from certain angles, and more particularly when viewed with the front face at an angle to the line of sight of the viewer, an image of the reflective surface appears on that one of the side walls which is viewed through the front wall. Thus the appearance is created of a reflective surface on that side wall which is seen through the front wall.

The present invention also contributes to a pleasing and unusual result where the front wall of the container bears an opaque element or elements such as symbols, words or the like. The reflector provides a background of attractive appearance which emphasizes and intensifies the appearance of the opaque elements as mentioned in connection with the opaque label illustrated in Fig. 1. This effect is heightened where opaque elements are relatively small or are in outline form as, for example, the outline element 25 illustrated in Fig. 4. Moreover, where the front and rear walls of the bottle are parallel or substantially parallel and the reflective surface is of a polished nature a reflection of the opaque elements may be seen when the bottle is viewed from an appropriate angle.

In the embodiments of the invention thus far described the reflector overlies and is in contact throughout its entire extent with the rear wall of the container to which it is applied. However, a somewhat different and pleasing effect may be produced by so disposing the reflector that only a portion of the reflecting surface is in contact with the rear wall and the remainder of the reflecting surface extends in a direction away from the wall and the contacting portion of the reflective surface.

Such an arrangement is shown in Figs. 5 to 7 to which reference is now made. For the purpose of illustration the container 30 takes the form of a bottle having transparent or translucent walls, the bottle being generally in the form of a right rectangular prism.

Disposed on the rear wall 31 of the bottle 30 is a reflector 32 having a reflecting surface 33. The reflector 32 has a portion 34 which overlies and is in contact with the wall 31 of the bottle. The corresponding portion of the reflective surface 33 thus functions in a manner similar to that described in connection with the forms of the reflectors shown in Figs. 1 and 4. That is to say, such portion of the reflective surface 33 serves to reflect back through the bottle at least certain of the rays of light entering the bottle through the side and front walls of the bottle.

The reflector 32 is also provided with a portion 35 which extends away from the portion 34 and the rear wall of the bottle and projects rearwardly therefrom. Preferably the portion 35 is of arcuate or rolled form although it may, if desired, be of flat or planar form extending at an angle to the portion 34. The reflective surface of the portion 35 thus serves to reflect through the rear wall 31 of the bottle and the front wall 36 of the bottle, as well as through any transparent or translucent liquid which may be in the bottle, at least a portion of the light rays impinging upon the reflective surface of the portion 35 from a direction rearwardly of the bottle as illustrated somewhat diagrammatically in Fig. 7. Owing to the fact the reflective surface of the portion 35 extends out of the plane of the remainder of the reflective surface the former presents a different appearance from the latter when viewed with the bottle in normal viewing position.

It will be understood that while the form of reflector shown in Figs. 5 to 7 inclusive is illustrated as applied to a bottle having planar front and rear walls a reflector of this type may also be applied to a bottle having arcuate walls. Thus, a bottle such as the bottle 10 may have applied thereto a reflector formed with a first portion overlying and in contact with the rear wall of the bottle and

a second portion extending away from the rear wall and the contacting portion of the reflector.

The reflector of the present invention may be formed with a polished mirrorlike surface or a "satin" surface as explained hereinbefore which surface provides a high degree of reflection. However, it is within the scope of this invention to provide a reflective surface having a roughened appearance.

For example, the reflective surface may be fluted or corrugated as illustrated somewhat diagrammatically in Fig. 8 of the drawings. The reflector **40** is provided with small flutes or corrugations **41** which provide a high light presenting a striated or striped appearance.

In another modification of the reflective surface the latter may be so formed as to present a stippled appearance. By way of example the reflector **50** is provided with a multiplicity of small, closely spaced indentations **51** whereby the intervening portions of the surface are highlighted and present a stippled appearance.

A hammered appearance may be provided such as illustrated in Fig. 10. To this end the reflector **60** has its surface provided with indentations **61** of such size, shape and arrangement as provide the desired appearance.

The reflective surface whether mirrorlike or with any of the other surface characteristics described herein may, if desired, be colorless or it may be suitably tinted or colored. Where so tinted or colored the color is chosen so as to enhance the attractiveness of the liquid. For example, where the liquid is pale or weak in appearance the reflective surface may be colored similar to the liquid but of a richer and deeper quality thereby to enrich and deepen the color appearance of the liquid. On the other hand, the color of the reflective surface may be so selected as to modify the normal color appearance of the liquid.

Where the term "translucent" is used herein in connection with a material it will be understood that it denotes a sufficient degree of transparency of the material thus designated to transmit light to such an extent that the reflection of such light by the reflector is readily apparent to the viewer.

I claim:

1. A display device for translucent liquids comprising a container having at least its side wall portion translucent and a metallic, mirror-like reflecting surface overlying said side wall portion throughout less than the entire area thereof and facing toward the interior of said container, whereby to reflect outwardly through the container walls and any translucent liquid in said container at least a portion of the light passing into the container.

2. The invention as set forth in claim 1 wherein said reflective surface is formed to provide a fluted appearance.

3. The invention as set forth in claim 1 wherein said reflective surface is formed to provide a hammered appearance.

4. The invention as set forth in claim 1 wherein said reflective surface is formed to provide a stippled appearance.

5. The invention as set forth in claim 1 wherein said reflective surface is colored.

6. A display device for translucent liquids comprising a display container having at least its side wall portion translucent and a metallic, mirror-like reflecting surface on said side wall portion, said reflecting surface having a first section overlying said side wall portion throughout less than the entire area thereof and facing toward the interior of said container and a second section extending away from said first section and projecting outwardly of said side wall portion of the container.

7. A display device for translucent liquids comprising a container having at least its side wall portion translucent, a metallic, mirror-like reflecting surface on a first area of said side wall portion and facing toward the interior of said container and an opaque surface on a second area of said side wall portion opposite said first area and substantially in alignment with said reflecting surface, said reflecting surface and said opaque surface together extending over less than the entire surface area of said side wall portion thereby to permit light to pass into said container and be reflected by said reflecting surface through the container walls and any translucent liquid in said container.

8. The invention as set forth in claim 7 wherein said opaque surface is smaller in area than said reflecting surface.

9. A display device for transparent liquids comprising a transparent bottle, a sheet secured on the side wall of said bottle and having a metallic, mirror-like reflecting surface facing toward the interior of the bottle, and an opaque label secured to a portion of the side wall of the bottle opposite to that on which said sheet is secured and substantially in alignment with said sheet, said sheet and said label being spaced apart whereby light may pass into said container and at least a portion thereof reflected through the container walls and any transparent liquid in said container.

10. The invention as set forth in claim 9 wherein said label has a metallic, mirror-like reflecting surface on its inner face.

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